Foundation Training Glossary

This glossary provides an overview of the technical terms associated with Blue Prism Process development. You can use it familiarize yourself with these terms before you begin the training, or to refer back to terms as you progress through the training.

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Areas of Blue Prism

Term	Definition	Reference
Application Modeller	*Application Modeller can be accessed via Object Studio. Using this tool, a Business Object can capture and identify Elements within the interface of an application, so that it can interact with the application. Application Modeller can be used to create a unique Attributes list for each of the Elements identified, to ensure they can be found and used by the Business Object.*	Find Detail Throughout Section 6
Control Room	*Control Room is where published Process Solutions can be assigned to Digital Workers to create Sessions. From here Sessions can be run and managed and Work Queues can be accessed, monitored, and managed. Schedules can also be initiated here, to restrict the processing of Sessions to specified dates and times.*	Find Detail in Section 4.5
Object Studio	*Object Studio is where Business Objects are created, configured, edited and organized.*	Find Detail Throughout Section 5
Process Studio	*Process Studio is where Processes are created, configured, edited and organized.*	Find Detail Throughout Sections 2 and 3
System Manager	*System Manager is where the settings for Blue Prism as a whole are accessed. Create and maintain user accounts, roles and permissions. View history or retire Processes or Business Objects. Manage Web Services. Create and administer Work Queues. Manage Licenses and general user interface settings.*	Find Detail in 9.3 and Section 10
Release Manager	*Release Manager is where Packages are created and Releases are exported.*	Find Detail in Section 10.1

General

Term	Definition	Reference
Process Automation	*Process Automation is the use of digital technology to perform the processing of workloads. Business processes can be fully automated, or partially automated with human intervention built in at strategic points.*	Throughout
Blue Prism Solution	*A Blue Prism Solution is the term used to describe the end-to-end functionality of a Process. This includes the diagrams constructed in Process/Object Studio, the embedded Exception Handling logic, the Work Queue Configuration and the Packaging/Release of a Process.*	Find Detail Throughout Sections 7 and 8
Manual Review	*When an Item is processed by a Work Queue and is flagged as an Exception, then it must be picked up by a person who will check and complete the processing manually.*	Throughout
Process/Object Diagram	*A Process or Object Diagram is the visual representation of the Blue Prism computer program. Users can construct these diagrams from a selection of pre-configured components, to instruct Blue Prism to perform tasks.*	Throughout
Process Flow	*When a Process is run, it will flow through the Process/Object Diagram following the hierarchy determined by the Page structure. The Process flow can be followed in Process/Object Studio as it highlights each Stage in yellow as it works through each task.*	Throughout

Technical Concepts

Term	Definition	Reference
Action	*Actions are the components of a Business Object. A Business Object is made up from a set of Pages known as Actions and each Action Page has its own logic diagram that performs a task, which is usually an interaction with an application. For example, an Action Page could be named 'Launch' and the logic within that Action Page could instruct an application to open.*	Find Detail Throughout Sections 7, 8 and 9
Attach	*When a Business Object needs to interact with an application that is already open and running on screen, then it can be configured to connect or 'Attach' to the application.*	Find Detail in 6.10
Attributes	*Applications are made up of various Elements such as windows, fields and buttons. Each of these Elements are made up of various characteristics or 'Attributes' that combine to create a unique fingerprint. This enables the Element to be found and used by a Business Object.*	Find Detail in 6.6 and 6.8
Business Exception	*An Exception raised due to rules based on data. For example, if an incorrect user-ID is passed to a Blue Prism Process or a loan amount applied for by a customer exceeds a specified limit.*	Find Detail in 7.1
Business Object	*A Business Object provides a Process with the functionality to interact with an external application.*	Find Detail Throughout Section 5
Circular Paths	*A Circular Path enables a Process or Action Diagram to flow around certain Stages over and over again, until a specified limit is reached.*	Find Detail in 3.1
Collection	*A Collection can store multiple values, stored in rows and columns in a table, similar to an Excel spreadsheet. Data in a Collection is accessed one row at a time and can be used for an Input and Output of data.*	Find Detail in 3.3
Data Items	*Place holders for any values within Blue Prism, such as numbers, text, dates, etc.*	Find Detail in 2.3

Term	Definition	Reference
Digital Worker	*When a Process is published to Control Room it can be assigned to run on an external resource known as a Digital Worker, which carries out the processing of the workload.*	Find Detail in 4.5
Element Tree	*The Elements that make up an Application Model, are organized in a hierarchy or 'Tree', which should be constructed to reflect the hierarchy of the application they model.*	Find Detail in 6.2
Elements	*Applications are made up of various Elements such as windows, fields and buttons. These Elements can be captured by a Business Object and used to perform interactions.*	Find Detail Throughout Sections 5 and 6
Evaluate Expression	*From within the Expression Editor Area of a Stage's properties window, the Evaluate Expression button can be used to check the result of an Expression, including what Data Type the Expression will produce.*	Find Detail in 2.2
Exception	*Any errors that occur when a Process or a Business Object is run, are known as 'Exceptions'. These can be the result of a problem with the data that is being processed, a problem with how the Process is configured, or a problem with an application that is utilized by the Process.*	Find Detail Throughout Section 8
Exception Blocks	*When Exception Handling logic is configured into a Process or a Business Object, then 'Exception Blocks' can be used to isolate the area of the Process/ Object Diagram that a Recover Stage is responsible for. This makes it easier to identify and manage Exceptions.*	Find Detail in 8.5
Exception Bubbling	*When an Exception occurs within a Business Object, then it will 'Bubble' up through the hierarchy of the Pages within the calling Process, until it reaches a Page that contains Recovery logic, at which point the Exception will be handled.*	Find Detail in 8.3
Exception Handling	*Exception Handling is the logic that is used to cater for Exceptions, which can be built into both Processes and Business Objects.*	Find Detail Throughout Section 8
Exception Item Retries	*In System Manager a Work Queue can be configured to rework or 'Retry' Items that are marked as an Exception, by inserting a clone of the Item into the Work Queue as a new pending Item.*	Find Detail in 9.5

Term	Definition	Reference
Exception Management	*Procedures can be built into a Process Solution, to manage the errors that are identified during processing. This 'Exception Management' occurs within the Work Queue.*	Find Detail Throughout Sections 7, 8 and 9
Expression	*An Expression is a function that can calculate a value. The values used within an Expression can be of any Data Type and can either be written within the Expression, or obtained from a Data Item or a Collection Stage within the same Process.*	Find Detail in 2.2
Flag	*A value that can be determined as either 'True' or 'False'. Decision Stages use Expressions to produce Flag outcomes.*	Find Detail in 2.2
Function	*A function can be used as the operative part an Expression. Many functions require two or more parameters to define a relationship between them e.g. the Add function: (parameter) + (parameter). Some functions are operations on a single value, meaning they only require one parameter e.g. Trim("parameter(Text)"). And some functions are operations in themselves and do not require any parameters, e.g. NewLine().*	Find Detail in 4.4
Global Data Item	*A Data Item that is universally accessible and can store values that can be accessed, updated and used by all of the Pages within a Process or Business Object.*	Find Detail in 4.3
Globally Unique Identifier (GUID)	*When an Item is added to a Work Queue, it is assigned a unique ID consisting of a series of characters and numbers. This ID is stored within a Data Item when the Work Queue Item is brought into the Process.*	Find Detail in 9.1
Input Parameter	*A value transmitted from an upper layer of a Process down to a lower layer, or from a Process to a Business Object Action. The Start Stage within a Sub-Page, Sub-Process, or Action can be configured to request an Input Value, which is provided by the Page Reference Stage, the Process Reference Stage or the Action Stage within the calling Process. The value provided by the calling Process or Process Page is then stored within a Data Item in the Sub-Process, the Sub-Page or the Business Object Action.*	Find Detail in 4.1

Term	Definition	Reference
Internal Exceptions	*If Exception Handling has not been built into a Process Solution, then any Exceptions that are the result of the way a Process is configured, or of the performance of an application that is used by a Process, will be categorized as 'Internal Exceptions'.*	Find Detail in 8.2
Item Key	*An Item Key is a value that is used to identify an individual Item within a Work Queue. This value correlates to the Key Name configured in System Manager. It also correlates with the column within the Collection Stage that is used to store the data associated with the Item.*	Find Detail in 9.3
Layering of Logic	*To ensure a Process is easy to manage and maintain, a Process Diagram should be broken down into specific tasks, which should be arranged on individual Pages within a layered hierarchy. The Master Page at the top, should determine the flow through the Sub-Pages.*	Find Detail in 3.4
Local Data Items	*A Data Item that can only be accessed, used and updated by the Stages that sit on the same Page.*	Find Detail in 4.3
Main Page / Sub-Page	*The Main Page is always at the top of a Process Solution, with Sub-Pages sitting underneath. There can be multiple Sub-Pages within a Process, but only one Main Page .*	Find Detail in 4.3
Master Process / Sub-Process	*A Process can interact with and utilize the functionality of another Process, by using a Process Reference Stage. The calling Process is the Master Process and the Process being called is the Sub-Process.*	Find Detail in 4.6
Multi-Object Design	*It is best practice to keep Business Objects as simple as possible. This can be achieved by using a separate Business Object to perform each interaction or small set of interactions, to carry out a simple task within an application. This approach is called 'Multi-Object Design'.*	Find Detail in 6.14
Output Parameter	*An End Stage on a Sub-Page, Sub-Process or Action can be configured to use an Output Parameter to transmit a value up to a Page Reference Stage, a Process Reference Stage or an Action Stage on the calling Page or Process.*	Find Detail in 4.4
Package	*A Package is essentially a list of all of the components that make up a Process Solution, e.g. Processes, Business Objects, Work Queues, Calendars, Schedules, Dashboards and Tiles.*	Find Detail in 10.1

Term	Definition	Reference
Postconditions	*Postconditions should describe the state of an application once an Action Stage has run, e.g. "the username and password fields of the application have had values entered into them."*	Find Detail in 6.3
Preconditions	*Preconditions should describe the state of an application prior to an Action being run, e.g. "the application log in window is open on screen."*	Find Detail in 6.3
Process Validation	*Process Validation checks a Process or Action Diagram for basic or potential errors. It provides feedback on any errors it identifies and provides the ability to highlight the exact Stages in which the errors have occurred.*	Find Detail in 2.4
Recovery logic	*The logic that sits between the 'Recover' and 'Resume' Stages within a Process or Action Diagram, that is used to salvage, manage, retry and potentially move on from Exceptions.*	Find Detail in 8.1
Recovery Mode	*The area of a Process or Action Diagram that sits between the Recover and Resume Stages.*	Find Detail in 8.1
Release	*To export a Process Solution from Blue Prism a Release must be created, which is essentially a snapshot of a Package at a particular moment in time. A Release will have the file extension '.bprelease'.*	Find Detail in 10.1
Re-Throwing Exceptions	*An Exception Stage can be used within Recovery Mode to 'Re-Throw' an Exception that has bubbled up. Preserving the information associated with the Exception - Exception Type and Exception Detail - and enabling the Exception to be handled in the Process layers that sit above.*	Find Detail in 8.2
Session	*When a Published Process Solution is assigned to a Digital Worker or Resource in Control Room, a Session is created.*	Find Detail in 4.5
Session Log	*When a Process runs it makes a record of each step it takes, this information is stored in the Session Log. The details of each Stage in the Process are recorded and errors are logged with the Stage Name, Stage Type and a description of the error that occurred.*	Find Detail in 4.5
Spy Mode	*Spy Mode is a feature of Application Modeller that can be accessed via the 'Identify' button. Spy Mode enables the user to highlight the Elements within an application window and capture their Attributes, so they can be used by an Action to perform a task.*	Find Detail in 6.1 and 6.2

Term	Definition	Reference
Stage	*A Stage is a graphical representation of a command within a Blue Prism Process or Object Diagram. Stages are linked together to form the logical flow of a Process and can be configured to perform tasks, calculate values and determine the path down which a Process flows.*	Find Detail in 2.1
Startup Parameter	*A Startup Parameter is a special type of Input Parameter, that is configured within the Start Stage on the Main Page of a Process. Upon running a Process or a Session, a Startup Parameter window will open to request an Input Value, which must be manually entered before the Process can run.*	Find Details in 4.1
Step Out	*The Step Out button enables the user to step out of the Process or Action Page that they are currently on, simultaneously executing the rest of the Stages on that Page and moving up to the layer above or out of the Process entirely.*	Find Details in 4.2
Step Over	*The Step Over button enables the user to jump past one Stage and onto the next, simultaneously executing the Stage that is being stepped over. An example of use, would be to Step Over a Page Reference Stage, which would cause the diagram on the Sub-Page to be executed in one go - without the need to step down into it and through every Stage on the Page.*	Find Details in 4.2
Stepping	*The Step button enables the user to step through a Process or Action Diagram, one Stage at a time.*	Find Details in 3.2
System Exception	*An Exception raised due to the behavior of an application, such as when a target application fails to launch or an Element can't be found on the screen.*	Find Details in 7.1
Throttle / Throttling	*By using a Wait Stage without any conditions at the beginning of an Action Diagram, the flow through the diagram can be 'Throttled', meaning the Process flow will pause for the duration specified in the Timeout. Throttles allow some extra time for an application to respond or for an interaction to complete before the flow continues, which can mitigate the variable performance speed of an application. Global Data Items are utilized for determining Timeout values.*	Find Details in 6.5
Throwing Exceptions	*An Exception Stage can be used within a Process or Action Diagram to 'Throw' an Exception if a Decision Stage or a Wait Stage produces an undesired or 'out of scope' outcome. To Throw an Exception means to embed some information into the Exception, then release it so it can bubble up to a Recover Stage on the same Page or on an upper Page, where it can be handled.*	Find Details in 8.2

Term	Definition	Reference
Timeout	*Timeout is an essential part of the Wait Stage. The duration specified in the Timeout serves as a pause, to allow for specified conditions to be met within an application. The Timeout Stage is usually followed by an Exception Stage, but not always.*	Find Details in 6.4
Unconditional Wait	*An Unconditional Wait is a Wait Stage with no conditions applied, with the Timeout value used as a pause. Unconditional Waits are only used when there is an interaction between an Action and an application that does not result in a change in state in the interface of the application. Wait Stages with conditions are always preferable where possible.*	Find Details in 6.5
Validate	*Within the Expression Editor Area of a Stages properties window, users can click the Validate button to check whether the Expression they have constructed will result in the desired output and is therefore valid.*	Find Details in 2.2
Wait Condition	*A Condition within a Wait Stage usually checks that an application is in the correct state before an interaction and that a change in state has occurred following an interaction. A Wait Stage can have multiple conditions. Conditions appear as small circular nodes on the path between the Wait and Timeout Stages.*	Find Details in 6.4
Wildcard Symbol	*An Asterix (*) can be used as a 'Wildcard Symbol' when trying to locate something by its title. It can stand in for characters or blank spaces before or after the parts of the title that is known. For example, if you are looking for an application window and you know the window title has the words 'Log In' in them but you don't know what comes after, you can simply enter 'Log In*' which will return any results which include the words 'Log In' plus anything that may come after. There are other Wildcard symbols which have slightly different uses such as ?, !, -, #."*	Find Details in 6.14
Work Queue	*Data from external sources can be extracted by a Blue Prism Process and then stored as a list of workable Items within a Blue Prism Work Queue. A Work Queue is an internal configurable list that provides the functionality for thorough monitoring, sharing, logging and managing all of the data that needs to be processed by Blue Prism. A Work Queue is one of the fundamental components of a Blue Prism Solution.*	Find Detail Throughout Sections 7, 8 and 9

Environment

Term	Definition	Reference
Environment	*An Environment includes its own database, application servers, virtual machines and Digital Workers.*	Find Detail Throughout Sections 10 and 12
Operational Environment	*The Operational Environment is the live environment within a Business, where finished Blue Prism Solutions are implemented and set to work on live customer / business data. Before a Blue Prism Solution is released here, it should have been through a thorough cycle of development and UAT testing.*	Find Detail Throughout Sections 10 and 12
UAT Environment	*The UAT Environment is a secure environment in which Process Solutions that have been configured by the Development Team can be tested. In here, live data can be worked by a Process in a controlled space that replicates the Operational Environment of the business. Thorough testing must be carried out here before the Solution is exposed to the real Operational Environment. During UAT testing, unexpected errors can be identified and then resolved by returning the Solution to the Development Environment for repair.*	Find Detail Throughout Sections 10 and 12
Development Environment	*The Development Environment is a secure space in which Processes, Business Objects and Work Queues can be configured and tested by the Development Team - which is the first stage of Blue Prism Solution development.*	Find Detail Throughout Sections 10 and 12